



```
⊕-if( a == 1 )  
  ⊥b = 2;
```

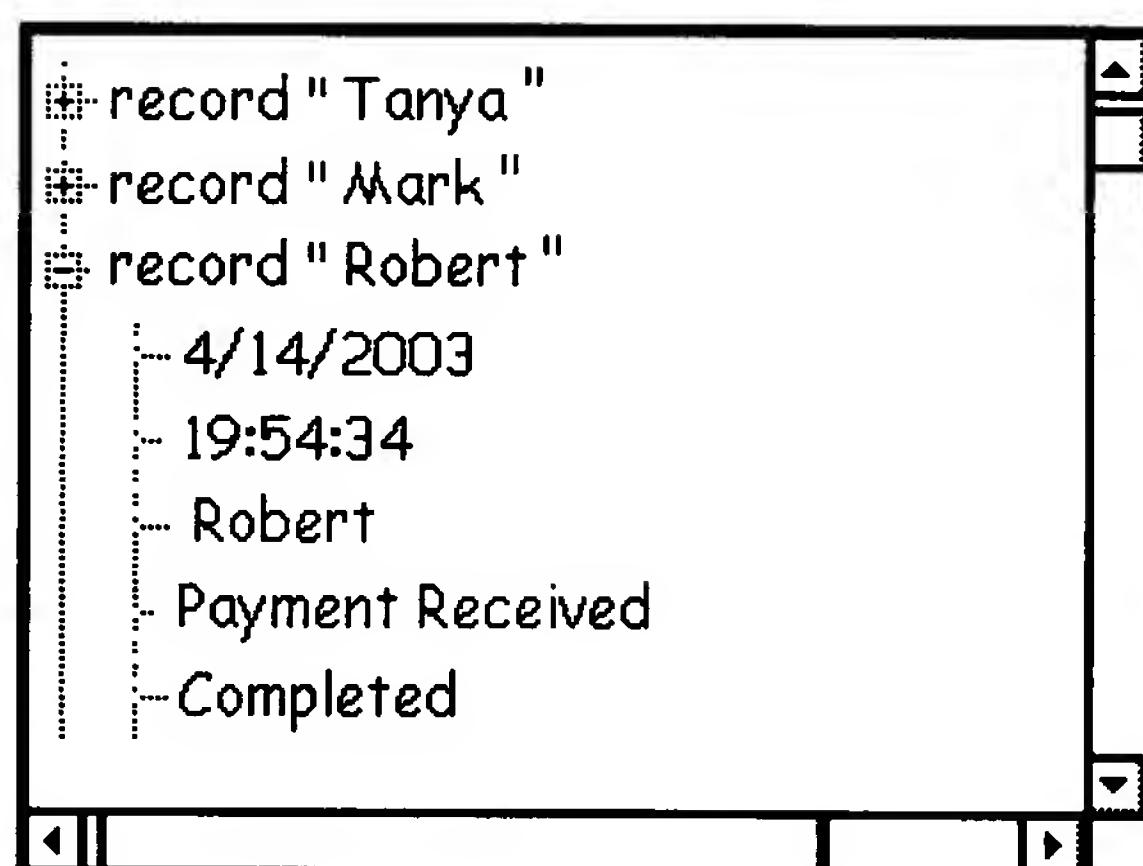
Fig. 12

rule representation mapping	representation of an if_statement
<pre> ⌈ "if" "(" boolean_expression ")" ⌈ ... embedded_statement ⌈ "else" ⌈ ... embedded_statement </pre>	<pre> ⌈ if (a==1) ⌈ ... b=2 ; ⌈ ⌈ "else" ⌈ ... c=3 ; </pre>
<pre> "if" "(" boolean_expression ")" ... embedded_statement ⌈ "else" ... embedded_statement </pre>	<pre> ⌈ if (a==1) ⌈ ... b=2 ; ⌈ ⌈ "else" ⌈ ... c=3 ; </pre>

Fig. 14

```
record
|- 4/19/2003
|- 11:20:35
|- Robert
|- Payment Received
|- Uncleared
record
record
|- 4/16/2003
|- 6:38:28
|- Mark
|- Payment Received
|- Completed
record
|- 4/14/2003
|- 19:54:34
|- Igor
|- Payment Received
```

Fig. 2



The image shows a software interface with a list of records on the left and a detailed view of a selected record on the right. The list on the left includes:

- record "Tanya"
- record "Mark"
- record "Robert"

The selected record "Robert" is expanded to show the following details:

- 4/14/2003
- 19:54:34
- Robert
- Payment Received
- Completed

At the bottom of the interface, there is a navigation bar with left and right arrows.

Fig. 3

```
using System;
namespace IVDEV.Trees
{
    /// <summary>
    /// Summary description for MyControl
    /// </summary>
    public class MyControl : System.Windows.Forms.UserControl
    {
        private void MyTabPage_Enter(object sender, System.EventArgs e)
        {
            rb = new RepresentationBuilder();
            rb.code = textBox1.Text;
            rb.path_to_grammar = "C:\\\\grammars";
            rb.BuildGrammarTree();
            if ( a==1 )
            {
                b= rb.c ;
                while ( a==b) { a+= rb.p ;}
            }
        }
        //the rest of the code is omitted for clarity...
    }
}
```

Fig. 4

```
using System;
namespace IVDEV.Trees
{
    /// <summary>
    /// Summary description for MyControl
    /// </summary>
    public class MyControl : System.Windows.Forms.UserControl
    {
        private void MyTabPage_Enter(object sender, System.EventArgs e)
        {
            rb = new RepresentationBuilder();
            rb.code = textBox1.Text;
            rb.path_to_grammar = "C:\\grammars";
            rb.BuildGrammarTree();
            if (a==1)
            {
                b=rb.c;
                while ( a==b)
                {
                    a+=rb.p;
                }
            }
            //the rest of the code is omitted for clarity...
        }
    }
}
```

Fig. 5

```
"if" "(" boolean_expression ")"
  └─ embedded_statement
    └─ "else"
      └─ embedded_statement
```

Fig. 8

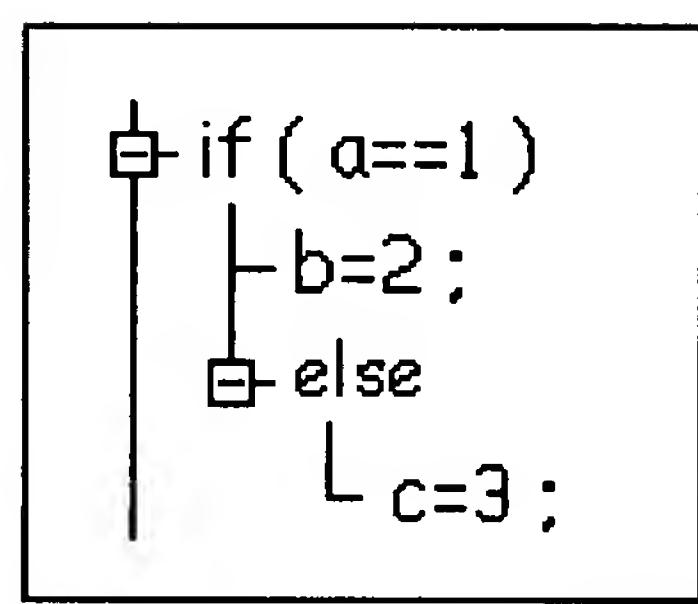


Fig. 9